

TITLE LIV—PILOT PROGRAMS TO ENHANCE FEDERAL CYBERSECURITY

SEC. 5181. ACTIVE CYBER DEFENSIVE STUDY.

(a) DEFINITION.—In this section, the term “active defense technique”—

(1) means an action taken on the systems of an entity to increase the security of information on the network of an agency by misleading an adversary; and

(2) includes a honeypot, deception, or purposefully feeding false or misleading data to an adversary when the adversary is on the systems of the entity.

(b) STUDY.—Not later than 180 days after the date of enactment of this Act, the Director of the Cybersecurity and Infrastructure Security Agency, in coordination with the Director, shall perform a study on the use of active defense techniques to enhance the security of agencies, which shall include—

(1) a review of legal restrictions on the use of different active cyber defense techniques in Federal environments, in consultation with the Department of Justice;

(2) an evaluation of—

(A) the efficacy of a selection of active defense techniques determined by the Director of the Cybersecurity and Infrastructure Security Agency; and

(B) factors that impact the efficacy of the active defense techniques evaluated under subparagraph (A);

(3) recommendations on safeguards and procedures that shall be established to require that active defense techniques are adequately coordinated to ensure that active defense techniques do not impede threat response efforts, criminal investigations, and national security activities, including intelligence collection; and

SA 4765. Mr. HAGERTY (for himself, Mr. KING, and Mr. PORTMAN) submitted an amendment intended to be proposed to amendment SA 3867 submitted by Mr. REED and intended to be proposed to the bill H.R. 4350, to authorize appropriations for fiscal year 2022 for military activities of the Department of Defense, for military construction, and for defense activities of the Department of Energy, to prescribe military personnel strengths for such fiscal year, and for other purposes; which was ordered to lie on the table; as follows:

At the end of subtitle B of title II, add the following:

SEC. 2. COVERED PROJECTS UNDER TITLE XLI OF THE FAST ACT.

Section 41001 of the FAST Act (42 U.S.C. 4370m) is amended—

(1) in paragraph (6)(A)—

(A) in the matter preceding clause (i), by inserting “key technology focus areas impacting national security,” after “broadband,”;

(B) in clause (iii)(III), by striking “or” at the end;

(C) in clause (iv)(II), by striking the period at the end and inserting “; or”; and

(D) by adding at the end the following:

“(v)(I) is of substantial national importance and complexity, as determined by the Executive Director; and

“(II)(aa) is subject to NEPA;

“(bb) requires the preparation of an environmental document; or

“(cc) requires an authorization or environmental review that involves 2 or more agencies.”;

(2) by redesignating paragraphs (15) through (18) as paragraphs (16) through (19), respectively; and

(3) by inserting after paragraph (14) the following:

“(15) KEY TECHNOLOGY FOCUS AREA IMPACTING NATIONAL SECURITY.—The term ‘key technology focus area impacting national security’ means an area involving—

“(A) semiconductors;

“(B) artificial intelligence, machine learning, autonomy, and related advances;

“(C) high performance computing and advanced computer hardware and software;

“(D) quantum information science and technology;

“(E) robotics, automation, and advanced manufacturing;

“(F) natural and anthropogenic disaster prevention or mitigation;

“(G) advanced communications technology and immersive technology;

“(H) biotechnology, medical technology, genomics, and synthetic biology;

“(I) data storage, data management, distributed ledger technologies, and cybersecurity, including biometrics;

“(J) advanced energy and industrial efficiency technologies, such as batteries and advanced nuclear technologies, including but not limited to for the purposes of electric generation (consistent with section 15 of the National Science Foundation Act of 1950 (42 U.S.C. 1874)); and

“(K) advanced materials science, including composites and 2D materials.”.

SA 4766. Mr. HAGERTY submitted an amendment intended to be proposed to amendment SA 3867 submitted by Mr. REED and intended to be proposed to the bill H.R. 4350, to authorize appropriations for fiscal year 2022 for military activities of the Department of Defense, for military construction, and for defense activities of the Department of Energy, to prescribe military personnel strengths for such fiscal year, and for other purposes; which was ordered to lie on the table; as follows:

At the end of subtitle G of title X, add the following:

SEC. 1064. GUIDANCE ON FOREIGN TRANSPORTATION NETWORK COMPANIES.

Not later than 90 days after the date of the enactment of this Act, the Secretary of Defense, in consultation with the Secretary of State and the Director of National Intelligence, shall assess the security vulnerabilities associated with the use members of the Armed Forces and Department of Defense civilian personnel of foreign transportation network companies and provide guidance on the appropriate use of such companies. The assessment shall include a review of the data privacy and national security risks inherent to third-party transportation operators with ties to foreign government agencies that provide transportation services to members of the Armed Forces, including the exposure of trip and route details and personally identifiable information.

SA 4767. Ms. DUCKWORTH submitted an amendment intended to be proposed to amendment SA 3867 submitted by Mr. REED and intended to be proposed to the bill H.R. 4350, to authorize appropriations for fiscal year 2022 for military activities of the Department of Defense, for military construction, and for defense activities of the Department of Energy, to prescribe military personnel strengths for such fiscal year, and for other purposes; which was ordered to lie on the table; as follows:

At the appropriate place, insert the following:

SEC. . CHILD CARE RESOURCE GUIDE.

The Small Business Act (15 U.S.C. 631 et seq.) is amended—

(1) by redesignating section 49 as section 50; and

(2) by inserting after section 48 the following new section:

“SEC. 49. CHILD CARE RESOURCE GUIDE.

“(a) IN GENERAL.—Not later than 1 year after the date of the enactment of this section and not less frequently than every 5 years thereafter, the Administrator shall publish or update a resource guide, applicable to various business models as determined by the Administrator, for small business concerns operating as child care providers.

“(b) GUIDANCE ON SMALL BUSINESS CONCERN MATTERS.—The resource guide required under subsection (a) shall include guidance for such small business concerns related to—

“(1) operations (including marketing and management planning);

“(2) finances (including financial planning, financing, payroll, and insurance);

“(3) compliance with relevant laws (including the Internal Revenue Code of 1986 and this Act);

“(4) training and safety (including equipment and materials);

“(5) quality (including eligibility for funding under the Child Care and Development Block Grant Act of 1990 (42 U.S.C. 9857 et seq.) as an eligible child care provider); and

“(6) any other matters the Administrator determines appropriate.

“(c) CONSULTATION REQUIRED.—Before publication or update of the resource guide required under subsection (a), the Administrator shall consult with the following:

“(1) The Secretary of Health and Human Services.

“(2) Representatives from lead agencies designated under section 658D of the Child Care and Development Block Grant Act of 1990 (42 U.S.C. 9858b).

“(3) Representatives from local or regional child care resource and referral organizations described in section 658E(c)(3)(B)(iii)(I) of the Child Care and Development Block Grant Act of 1990 (42 U.S.C. 9858c(c)(3)(B)(iii)(I)).

“(4) Any other relevant entities as determined by the Administrator.

“(d) PUBLICATION AND DISSEMINATION REQUIRED.—

“(1) PUBLICATION.—The Administrator shall publish the resource guide required under subsection (a) in English and in the 10 most commonly spoken languages, other than English, in the United States, which shall include Mandarin, Cantonese, Japanese, and Korean. The Administrator shall make each translation of the resource guide available on a publicly accessible website of the Administration.

“(2) DISTRIBUTION.—

“(A) ADMINISTRATOR.—The Administrator shall distribute the resource guide required under subsection (a) to offices within the Administration, including district offices, and to the persons consulted under subsection (c).

“(B) OTHER ENTITIES.—Women’s business centers (as described under section 29), small business development centers, chapters of the Service Corps of Retired Executives (established under section 8(b)(1)(B)), and Veteran Business Outreach Centers (as described under section 32) shall distribute to small business concerns operating as child care providers, sole proprietors operating as child care providers, and child care providers that have limited administrative capacity, as determined by the Administrator—

“(i) the resource guide required under subsection (a); and

“(ii) other resources available that the Administrator determines to be relevant.”.

SA 4768. Mr. CRAMER (for himself, Ms. HIRONO, Mr. WICKER, and Mr. BLUMENTHAL) submitted an amendment intended to be proposed to amendment SA 3867 submitted by Mr. REED and intended to be proposed to the bill H.R. 4350, to authorize appropriations for fiscal year 2022 for military activities of the Department of Defense, for military construction, and for defense activities of the Department of Energy, to prescribe military personnel strengths for such fiscal year, and for other purposes; which was ordered to lie on the table; as follows:

At the end of subtitle E of title III, add the following:

SEC. 376. INCREASE IN FUNDING FOR PROCUREMENT AND CERTAIN OPERATION AND MAINTENANCE ACCOUNTS.

(a) ADDITIONAL FUNDING.—

(1) PROCUREMENT.—The amount authorized to be appropriated for fiscal year 2022 by section 101 for procurement is hereby increased by \$10,000,000.

(2) OPERATION AND MAINTENANCE.—The amount authorized to be appropriated for fiscal year 2022 by section 301 for operation and maintenance is hereby increased by \$40,000,000.

(b) OFFSET.—The amount authorized to be appropriated for fiscal year 2022 by section 301 for operation and maintenance is hereby decreased by \$50,000,000, with the amount of the reduction to be derived from Army Operation and Maintenance, Afghanistan Security Forces Fund, Afghan National Army, Sustainment, line 010 of the table in section 4301.

SA 4769. Mr. WARNOCK submitted an amendment intended to be proposed to amendment SA 3867 submitted by Mr. REED and intended to be proposed to the bill H.R. 4350, to authorize appropriations for fiscal year 2022 for military activities of the Department of Defense, for military construction, and for defense activities of the Department of Energy, to prescribe military personnel strengths for such fiscal year, and for other purposes; which was ordered to lie on the table; as follows:

At the appropriate place in title XVI, insert the following:

SEC. ____ . REPORT ON PATHWAYS FOR CYBER AND SOFTWARE ENGINEERING WORKFORCE GROWTH.

(a) REPORT REQUIRED.—Not later than one year after the date of the enactment of this Act, the Secretary of Defense shall submit to Congress a report on pathways for cyber and software engineering workforce growth.

(b) MATTERS COVERED.—The report required by subsection (a) shall cover the following:

(1) Any current Department of Defense hiring practices or restrictions that constrain workforce growth or retention.

(2) Areas where partnership with State and local educational agencies focused on elementary or secondary education can boost workforce in an area, especially in rural schools and schools that receive funds under part A of title I of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 6301 et seq.).

(3) Incentive and policy options to bring qualified individuals to the regions where the jobs are currently.

(4) Authorities and programs at the Department of Labor that could be used to educate, retrain, or incentivize individuals to pursue these fields in cyber and software engineering.

(5) Options for scholarships and internships to grow a cyber and software engineering workforce pipeline.

SA 4770. Ms. MURKOWSKI (for herself, Mr. KING, and Mr. SULLIVAN) submitted an amendment intended to be proposed to amendment SA 3867 submitted by Mr. REED and intended to be proposed to the bill H.R. 4350, to authorize appropriations for fiscal year 2022 for military activities of the Department of Defense, for military construction, and for defense activities of the Department of Energy, to prescribe military personnel strengths for such fiscal year, and for other purposes; which was ordered to lie on the table; as follows:

At the appropriate place, insert the following:

SEC. ____ . MODIFICATION TO REGIONAL CENTERS FOR SECURITY STUDIES.

(a) IN GENERAL.—Section 342(b)(2) of title 10, United States Code, is amended by adding at the end the following new subparagraph:

“(F) The Ted Stevens Center for Arctic Security Studies, established in 2021 and located in Anchorage, Alaska.”.

(b) ACCEPTANCE OF GIFTS AND DONATIONS.—Section 2611(a)(2) of title 10, United States Code, is amended by adding at the end the following new subparagraph:

“(F) The Ted Stevens Center for Arctic Security Studies, established in 2021 and located in Anchorage, Alaska.”.

SA 4771. Mr. HICKENLOOPER (for himself, Mr. CRAMER, Mr. KELLY, and Mr. MORAN) submitted an amendment intended to be proposed to amendment SA 3867 submitted by Mr. REED and intended to be proposed to the bill H.R. 4350, to authorize appropriations for fiscal year 2022 for military activities of the Department of Defense, for military construction, and for defense activities of the Department of Energy, to prescribe military personnel strengths for such fiscal year, and for other purposes; which was ordered to lie on the table; as follows:

At the end of subtitle A of title XV, add the following:

SEC. 1516. SENSE OF SENATE ON ANTI-SATELLITE MISSILE TEST OF RUSSIAN FEDERATION.

It is the sense of the Senate that—

(1) the reckless anti-satellite missile test of the Russian Federation on November 15, 2021, and the threat the resulting orbital debris poses to satellites, ongoing and future space missions, and the safety of United States astronauts at the International Space Station, are to be condemned; and

(2) support for responsible norms of behavior in space should be reaffirmed.

SA 4772. Mr. VAN HOLLEN (for himself and Mr. TILLIS) submitted an amendment intended to be proposed to amendment SA 3867 submitted by Mr. REED and intended to be proposed to the bill H.R. 4350, to authorize appropriations for fiscal year 2022 for military activities of the Department of Defense, for military construction, and for defense activities of the Department of Energy, to prescribe military personnel strengths for such fiscal year, and for other purposes; which was ordered to lie on the table; as follows:

At the appropriate place, insert the following:

SEC. ____ . HIGH RESEARCH ACTIVITY STATUS HBCU PILOT PROGRAM.

(a) PURPOSES.—The purposes of the program established under this section shall be—

(1) to enable high research activity status historically Black colleges and universities to achieve very high research activity status; and

(2) to increase the national number of African-American undergraduate and graduate students with degrees in science, technology, engineering, and mathematics.

(b) DEFINITIONS.—

(1) SECRETARY.—The term “Secretary” means the Secretary of Defense.

(2) HIGH RESEARCH ACTIVITY STATUS.—The term “high research activity status” means such status, as classified by the Carnegie Classification of Institutions of Higher Education.

(3) HISTORICALLY BLACK COLLEGE OR UNIVERSITY.—The term “historically Black college or university” has the meaning given the term “part B institution” under section 322 of the Higher Education Act of 1965 (20 U.S.C. 1061).

(4) VERY HIGH RESEARCH ACTIVITY STATUS.—The term “very high research activity status” means such status, as classified by the Carnegie Classification of Institutions of Higher Education.

(c) VERY HIGH RESEARCH ACTIVITY STATUS HISTORICALLY BLACK COLLEGES OR UNIVERSITIES PROGRAM.—

(1) PROGRAM.—The Secretary is authorized to establish and carry out, using funds made available for research activities across the Office of the Undersecretary of Defense for Research and Engineering, a pilot program to award grants in focused areas of scientific research on a competitive, merit-reviewed basis to grow high research activity status (R2) historically Black colleges and universities to achieve very high research activity status (R1), while increasing the national number of African-American undergraduate, graduate, and post-doctoral students with degrees in science, technology, engineering, and mathematics. The Secretary may expand the program to other historically Black colleges or universities beyond those historically Black colleges or universities classified as high research activity status if the Secretary determines that the program can support such an expansion.

(2) GRANTS.—In carrying out the program, the Secretary shall award grants for key areas of scientific research on a competitive, merit-reviewed basis to historically Black colleges or universities that are classified as high research activity status institutions at the time of application for such a grant.

(3) APPLICATION.—

(A) IN GENERAL.—To be eligible to receive a grant under this section, a historically Black college or university described in paragraph (2) shall submit an application to the Secretary at such time, in such manner, and containing such information and assurances as the Secretary may require.

(B) CONTENTS.—The application described in subparagraph (A) shall include, at a minimum, a description of—

(i) a plan for increasing the level of research activity and achieving very high research activity status classification within 10 years of the grant award, including measurable milestones such as growth in research expenditures, number of research doctoral degrees awarded, number of research-focused faculty, and other relevant factors;

(ii) how the institution of higher education will sustain the increased level of research activity beyond the duration of the award; and